Appln. No. 09/486,512 Amdt. dated: April 14, 2004

Reply to Office Action dated: Sept. 14, 2004

Amendments to the Specification:

Please delete the title in its entirety and insert the following therefor:

-- OPTICAL HEAD POSITION CONTROL FOR OPTICAL RECORDING DEVICE --

Please replace the paragraphs beginning at line 3, page 1 and ending at line 6, page 1 with the following amended paragraphs:

-- BACKGROUND OF THE INVENTION

Field of the Invention

The invention relates to data players in which a reading and / or writing head is positioned relatively to a data medium being read and / or recorded.

Description of the Related Art

A data player and / or recorder is a device which allows to read data stored on a data medium. --

Please replace the paragraphs beginning at line 8, page 2 and ending at line 22, page 2 with the following amended paragraphs:

-- US 4,977,539 discloses a compact disk player in which the optical pickup's position is determined using an encoder. The optical pickup is moved from a first to a second position which are separated by a number of tracks. Typically the optical pickup has a fixed speed of movement. The number of tracks is converted to a target number of encoder signals. While the optical pickup is moved the encoder signals are counted and compared to the target number. As soon as the number of encoder signals is equal to the target number a reverse direction braking is applied to the optical pickup. At this point the optical head passes beyond the second position and needs to be repositioned back in a direction reverse to it's first direction of movement in order to reach the second position. The higher the fixed speed, the stronger the reverse

direction braking needs to be in order to brake the optical head and to position it back to the second position. This drawback in fact limits a movement's speed and thus an access time to go from the first position to the second position.

SUMMARY OF THE INVENTION

The invention provides a solution which facilitates the fast and precise positioning of the data reading and / or writing head. --

Please replace the paragraphs beginning at line 18, page 4 and ending at line 14, page 5 with the following amended paragraphs:

-- In an eighth aspect according to the invention, a solution is seen in a method for positioning a data reading and / or writing head in a data player and / or recorder using a motor which moves the reading and / or writing head in steps, comprising increasing an amount of power at an input of the motor until the motor performs one step, and decreasing the amount of power afterwards.

BRIEF DESCRIPTION OF THE DRAWINGS

In the following examples will be described of ways to carry out the invention referring to drawings, wherein

- Fig. 1 contains a schematic side view of a data reading and / or writing positioning device,
- Fig. 2 contains a block diagram of a simplified data player according to the invention,
- Fig. 3 shows a speed curve,
- Fig. 4 shows a speed curve,
- Fig. 5 contains a flowchart illustrating a method according to the invention,
- Fig. 6 contains a block diagram of a simplified data player according to the invention,
- Fig. 7 shows a curve of current values,
- Fig. 8 contains a flowchart illustrating a method according to the invention,
- Fig. 9 contains a block diagram of a simplified data player according to the invention,
- Fig. 10 shows a current curve,
- Fig. 11 contains a flowchart illustrating a method according to the invention,

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Fig. 12 contains a block diagram of a data player according to the invention,

Fig. 13 contains a schematic representation of an encoder,

Fig. 14 contains a graphical explanation of the encoder function,

Fig. 15 contains a flowchart illustrating the processing of encoder signals,

Fig. 16 contains a flowchart illustrating a first method according to the invention,

Fig. 17 contains a flowchart illustrating a second method according to the invention, and

Fig. 18 contains a flowchart illustrating a third method according to the invention.

DETAILED DESCRIPTION OF THE INVENTION

Throughout the following description same references will be used for designating same parts. It is understood that the described examples are given to illustrate the invention and are not limitative of the present invention. A person skilled in the art may well modify the described examples and remain in the scope of the claimed invention. --

Please delete the abstract in its entirety and insert the following clean version of the abstract included on the next page.